

INNOVATION MYTHS AND HOW THE NHS SBRI IS HELPING TO REBALANCE THE ECONOMY

David Connell

Centre for Business Research, University of Cambridge

Chairman of Archipelago Technology

SPARK 2014

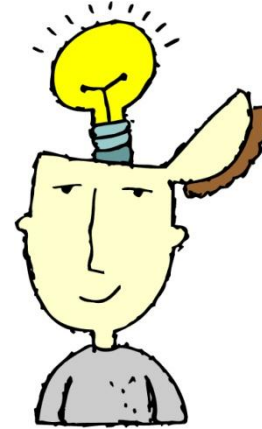
10th December 2014

HOW SCIENCE AND TECHNOLOGY BUSINESSES START: THE CONVENTIONAL WISDOM



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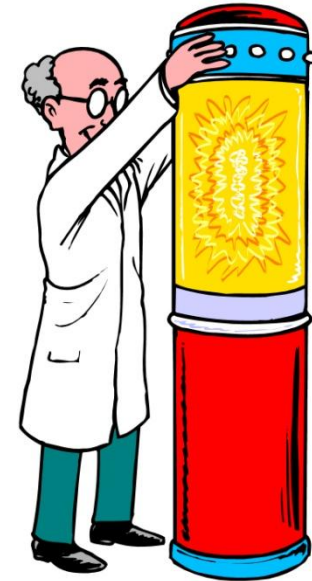
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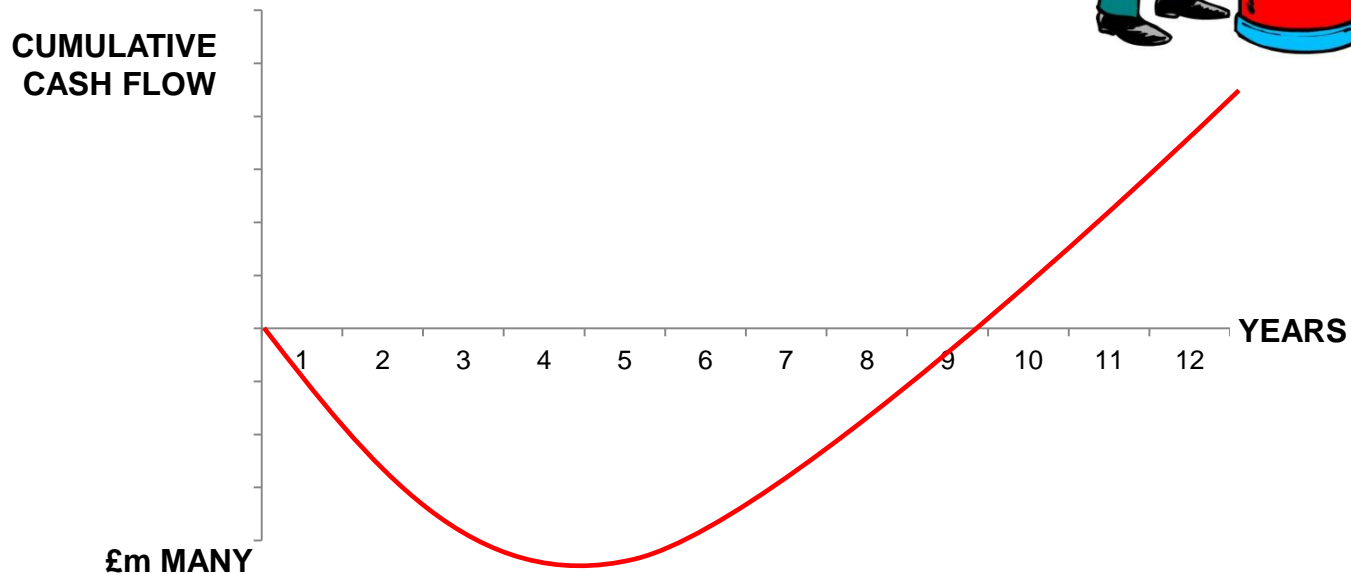
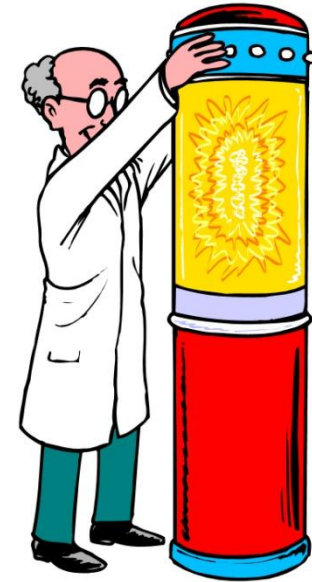
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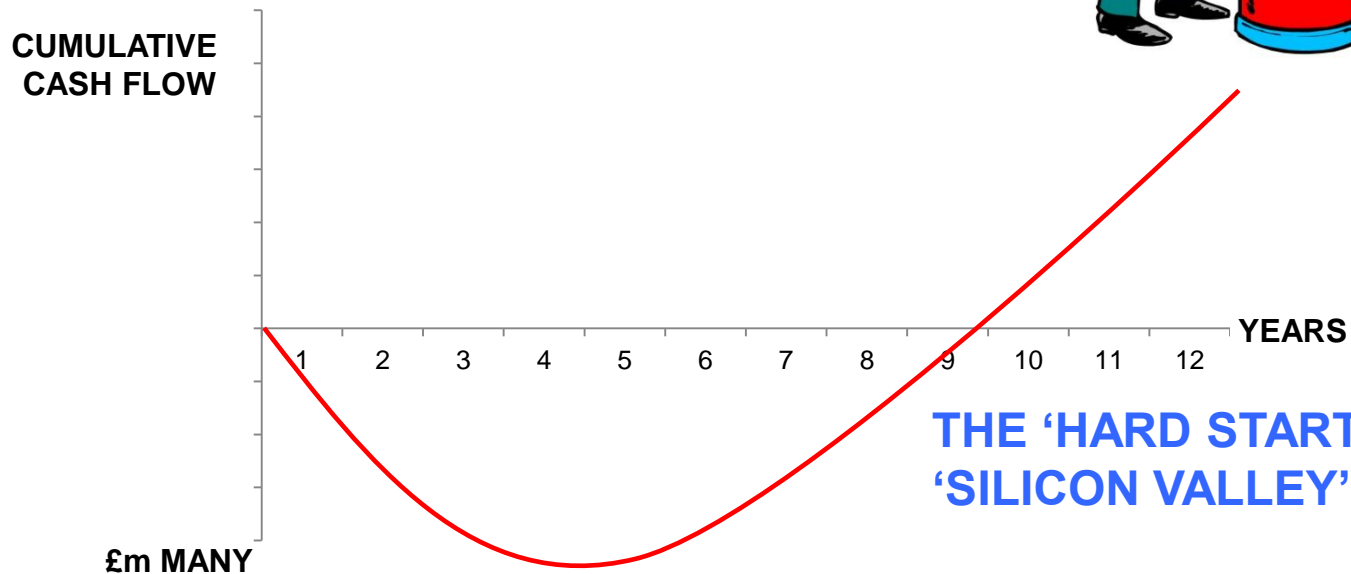
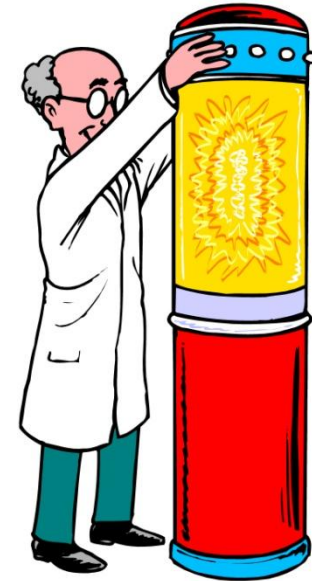
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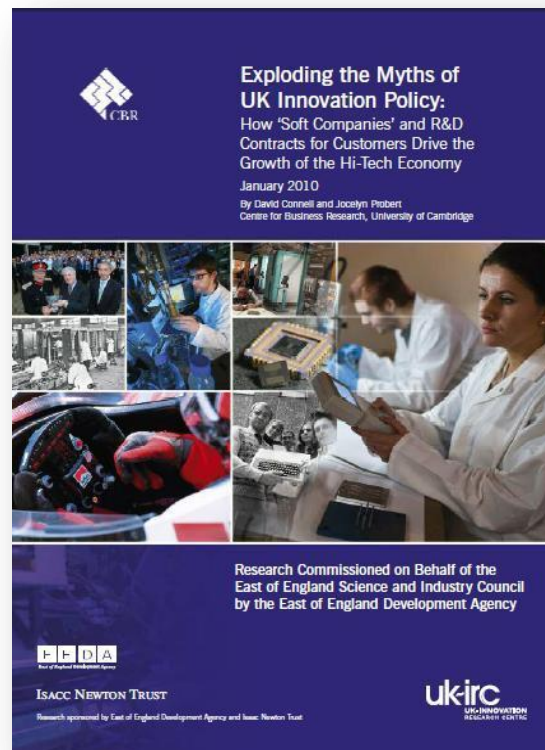
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THE 'HARD START UP' OR
'SILICON VALLEY' MODEL

HOW DO THE MOST SUCCESSFUL S&T BASED COMPANIES START IN PRACTICE



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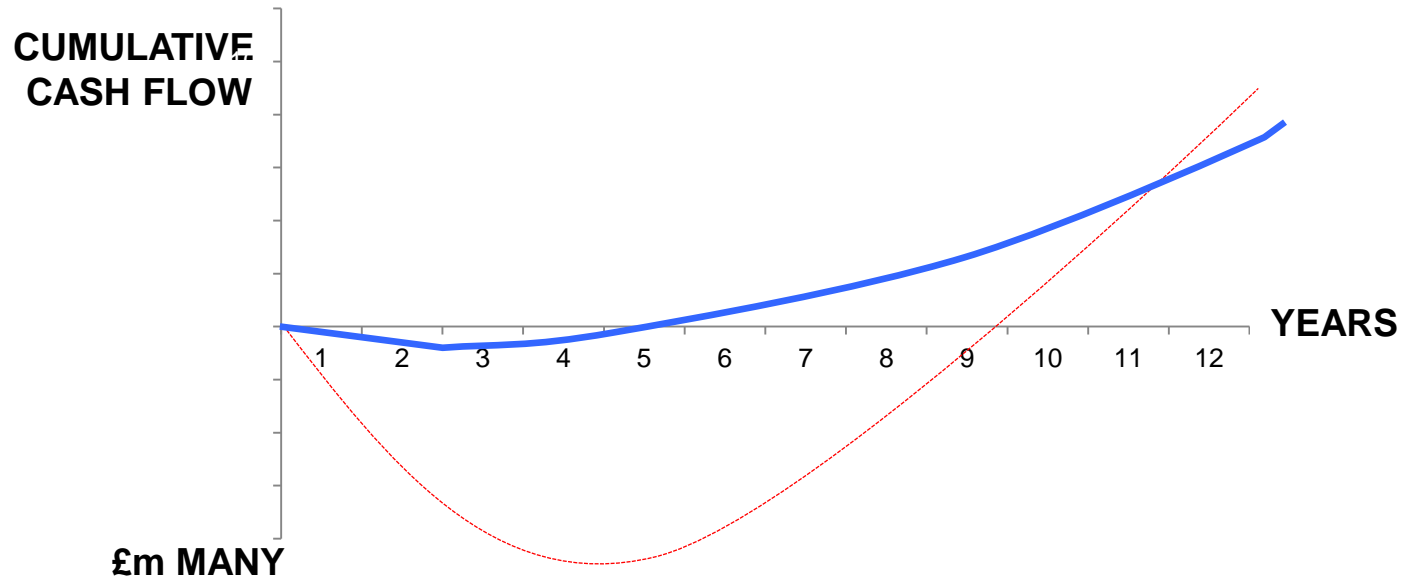
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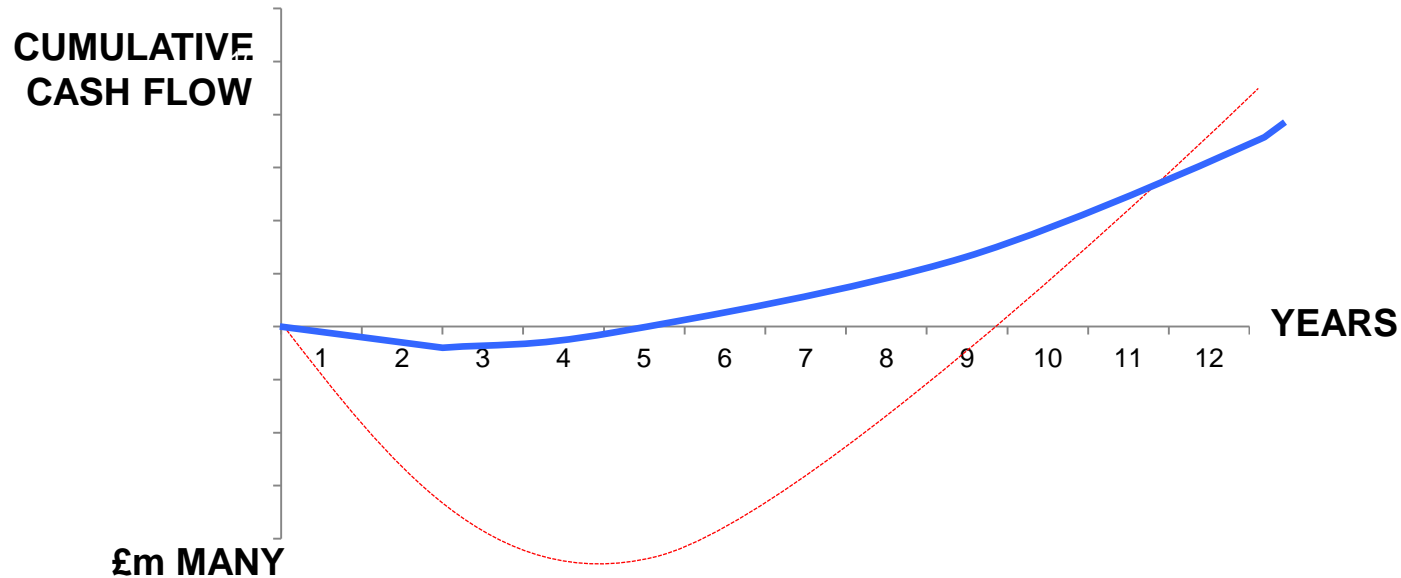
WRONG

**THE KEY DRIVER OF INNOVATION IS SOLVING
CUSTOMER PROBLEMS THROUGH R&D CONTRACTS**

THE ALTERNATIVE “SOFT START-UP” MODEL



THE ALTERNATIVE “SOFT START-UP” MODEL



Use development and consulting contracts to:

- generate early revenues
- clarify real user needs
- secure lead customer
- build credibility and expertise
- reduce early financing requirements
- retain entrepreneurial control

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- **£26m awarded from 2009 to 2014: 150 Phase 1s; 30 Phase 2s; 8 Phase 3s**

VIVO SMART MEDICAL DEVICE; SOFT START UP MICRO BUSINESS

- Founded 2010, based in MediCity Nottingham
- Founder, David Wright, previously ran a 16 person Hong Kong product development services business for 20 years
- Objective: use development contracts with third parties as stepping stone to build portfolio of healthcare products

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- SBRI contract to develop and test *Pupiloscope*
- Original technology created by scientists at Medical Physics Laboratory, Freeman Hospital, Newcastle
- Vivo has license and had earlier £90k TSB SMART grant

VIVO SMART'S PUPILSCOPE

Replaces this.....



VIVO SMART'S PUPILOSCOPE

Replaces this.....



With this.....

Pupiloscope® **VIVO™ Smart Medical Devices**
Bringing Innovation to Lives

Rapid assessment of pupil size & response rate.
Helping Doctors diagnose life threatening head injuries.



NHS
UK
TRADE & INVESTMENT
Technology Strategy Board
Driving Innovation

Winner
M
MEDICAL INNOVATION
NHS Partnership
Award

EBSC
one
EBCOM



FOUR QUANTITATIVE VARIABLES

- Max pupil diameter
- Latency
- Diameter % change
- Constriction velocity

BESPAK ; INCREASED PARTICIPATION IN VALUE CHAIN

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- Set up *Bespak Innovation* in 2010 as a new venture to develop proprietary technologies and products
- 18 people based in Cambridge
- SBRI contract to develop hand held *Lapas S*; automatic bolus drug delivery with a hidden integral needle and passive needle safety



WHATS DIFFERENT ABOUT SBRI

- Contracts not grants; customer pull and engagement
- 100% funding with up front element
- Enough to make a difference
- “Collaboration” not required
- Companies keep IP

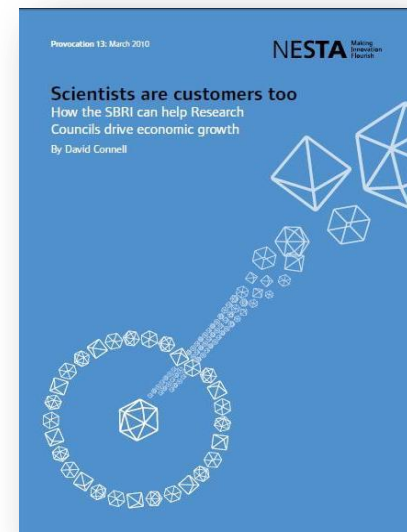
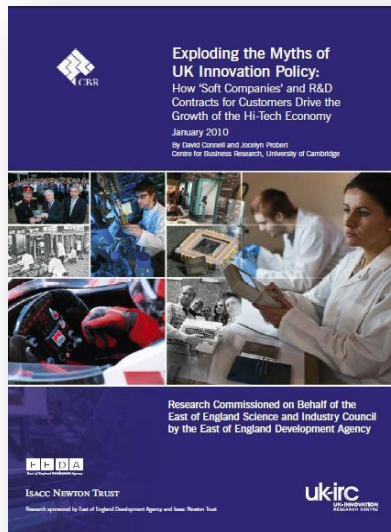
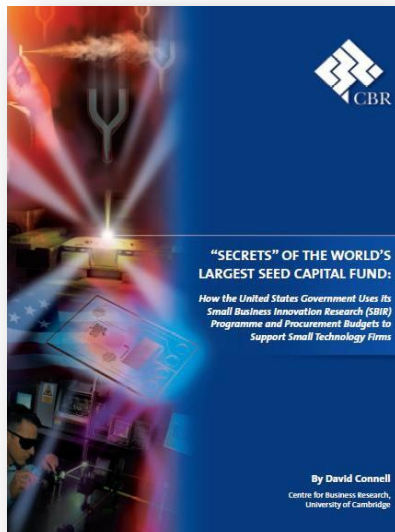
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- SBRI team helps engagement with clinicians and commissioning process
- Endorsement for future customers, partners, employees and investors

NHS SBRI GOING FORWARD.....

- Grow programme from £20m to £60m per annum to meet Chancellors commitment
- Rolling 3 year programme
- More ideas for competition themes – NHS, industry, wider research community
- Growing community of MedTech SMEs and new ventures in larger companies

FURTHER INFORMATION: www.davidconnell.org



NEW REPORT: CREATING MARKETS FOR THINGS THAT DON'T EXIST

Published by Cambridge Judge Business School; 24th November 2014

<http://www.jbs.cam.ac.uk/media/2014/rd-a-key-element-to-rebalance-the-economy-says-cambridge-study/>